

Date: Sat, 13 Feb 93 14:36:47 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #207
To: Info-Hams

Info-Hams Digest Sat, 13 Feb 93 Volume 93 : Issue 207

Today's Topics:

(none)

ARRL BULLETIN 15 ARLB015

Ham Radio Causes Cancer!

HF Propagation Beacons

Home building PTOs

Is used ham gear overpriced?

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Motorola SecureClear(tm) Cordless Phones

No Code Proposition

Pye Bantam Circuit Diagram

QRP amplifier ---> shorting stick

R-648/ARR-41 info needed

RF and Power Supply

TH-3 antenna problems

Voice Commander

Want mod for Yaesu FT-530

WARNING: Bogus Mods for HTX202!

Yaeasu FT-5100 qustions

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 13 Feb 93 17:32:08 GMT
From: news-mail-gateway@ucsd.edu
Subject: (none)
To: info-hams@ucsd.edu

>>Subject : Re: Why all the Bulletins?

>>Or better yet, instead of contributing another 100+ messages to my
>>mailbox (out of the 300+ I already get every day).....

>>It'll get done, but it's real low priority. Don't hold your breath.
>> - Brian

On the other hand, if they hold their breath your mail count will gradually
decline ! ;-)

Bob, WB5FBS

Date: Fri, 12 Feb 93 11:42:14 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!usenet.ins.cwru.edu!magnus.acs.ohio-
state.edu!cis.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU
Subject: ARRL BULLETIN 15 ARLB015
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AG56
QST DE W1AW
ARRL BULLETIN 15 ARLB015
FROM ARRL HEADQUARTERS
NEWINGTON CT FEBRUARY 11, 1993
TO ALL RADIO AMATEURS

AWARDS COMMITTEE NEWS

AERONAUTICAL AND MARITIME MOBILE QSOS IN THE ARRL INTERNATIONAL DX
CONTEST

THE AWARDS COMMITTEE HAS CHANGED THE RULES, STARTING WITH THE 1993
ARRL INTERNATIONAL DX CONTEST, TO ALLOW US AND CANADIAN STATIONS TO
WORK AERONAUTICAL AND MARITIME MOBILE STATIONS OUTSIDE THE US AND
CANADA FOR CONTEST QSO CREDIT. HOWEVER, AERONAUTICAL AND MARITIME
MOBILE QSOS DO NOT COUNT FOR ANY MULTIPLIER CREDITS.

THIS CHANGE WILL ALLOW W/VE STATIONS IN THE DX CONTEST TO LOG QSOS
WITH AERONAUTICAL AND MARITIME MOBILE STATIONS, BUT THEY WILL NOT
COUNT FOR MULTIPLIERS.

NNNN

Date: 13 Feb 93 17:03:27 GMT
From: news-mail-gateway@ucsd.edu
Subject: Ham Radio Causes Cancer!
To: info-hams@ucsd.edu

The LORAN TX will be around between 100kHz and 300kHz.

This is the area in which people have used high power radio for a long period of time. If there was a large excess mortality associated with high power LF radio then we would have seen it by now. This implies thaany risk associated with high power LF is comparable to other risks.

For me this is a very convinving argument. Until someone shows me a large excess in morality I refuse to worry about it. A problem a lot of people have is with risk assesment. For one politically senstive figure -- the number of people killed by doctors mistakes or by accidents involving a car greatly exceed the number killed by handguns. Yet we have groups for gun control, but not car or doctor control. A lot of people don't hgave a clue about releative risks involved. Some just want to oppose any possible change in their surroundings, and this is just another argument to latch onto.

Another point is that a 100kHz wave has a wavelength of 3000m (almost 2 miles) and couples into something as tiny as a human (1/1500 wavelength) with really poor efficiency. Ask any of the Part 15 lowfers who can use only a 50 foot antenna at 170 to 190kHz.

One worries more about wavelengths that are similar in order as the human body are parts of it (100Mhz and up). Here these is documented evidence for thermal effects.

72/73 Kevin, N7WIM / G8UDP
a-kevinp@microsoft.com

Date: 13 Feb 93 17:08:46 GMT
From: news-mail-gateway@ucsd.edu
Subject: HF Propagation Beacons
To: info-hams@ucsd.edu

The info about these beacons is also in the current edition (4th) of the ARRL Amateur Radio Operating Manual.

The biggest problem using these beacaon is the HF packeters users are

not aware of them and use this part of 20m. 9 times out of 10 all I hear is 300baud Bell Standard packet.

OBFlame (this is the hams group after all :-)

300 baud HF packet with AX25 is the biggest waste of space on the HF bands.

Please note this flame refers to 300 baud AX25 packet ONLY and not RTTY, AMATOR, Pactor, Clover and any other even slightly optimised HF digital mode (yeap even CW :-).

72/73 Kevin, N7WIM / G8UDP
a-kevinp@microsoft.com

Date: Fri, 12 Feb 1993 20:36:11 GMT
From: sdd.hp.com!hpscit.sc.hp.com!hplextra!hpl-opus!hpnmdla!alanb@network.UCSD.EDU
Subject: Home building PT0s
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, mbutts@mbutts.mentorg.com (Mike Butts) writes:

>My Drake R4C/T4XC and Ten-Tec 2510 all have PT0s with direct leadscrew
>mechanical tuning and linear 500 kHz bandspreads. Perhaps their coils are
>artfully wound.

"Artful" is definitely the right word for it. Legend has it that there was one special coil assembler at Drake who did all the PT0 coils because she had that special knack for just the right subtle techniques to get it to track across the band with almost no error. When she went on vacation, they quit building PT0s until she came back. When she retired, the Drake PT0s were just never quite the same again.

Fortunately, that was about the time the TR7 came out. It had both analog and digital dials, so the analog dial accuracy wasn't so important.

AL N1AL

Date: Fri, 12 Feb 1993 02:30:45 GMT
From: pacbell.com!sgiblab!swrinde!gatech!wa4mei!ke4zv!gary@network.UCSD.EDU
Subject: Is used ham gear overpriced?
To: info-hams@ucsd.edu

In article <109021@netnews.upenn.edu> yee@mipg.upenn.edu (Conway Yee) writes:
>I am currently in the market for an HT and have been shopping around

>both the new and used equipment. I notice that the going price for
>used gear is on the order of 80% (or so) of the new price. While I
>agree that this should be the price if this is all the market can
>bear, I question whether it is a bit overpriced. The risk in purchasing
>used gear is a bit higher than new.

[delete]

>

>After shopping around, I have pretty much resigned myself to having to
>buy my HT new. I would prefer a discontinued ICOM 32AT but the going
>rate is too high for my tastes. The difference between the used 32AT
>and a new rig isn't all that much.

>

>I am not sure about the market for used HF gear but since there is much
>more of it out there, I suspect that it is more reasonable. I purchased
>my used Yaesu 101B for a couple hundred dollars where the price of a
>modern rig is well over \$1k.

>

>Comments anyone?

Rigs are worth what they are worth. A 32AT is worth more than most
of the handheld scanners now on the market as a *radio*. Therefore
it's price remains high. On the other hand, with new HT models
coming out monthly, feature of the month traders mean there are a
lot of used HTs on the market. They think their month old wonders
should sell for nearly new prices. You *should* be able to find a
radio for about 40% of list price if you look around. IC2ATs are
going for about \$100 and they are still about the best 2 meter only
radios available.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Fri, 12 Feb 1993 20:50:30 GMT

From: sdd.hp.com!hpscit.sc.hp.com!hplextra!hpl-opus!hpnmdla!alanb@network.UCSD.EDU

Subject: Low current DC Power in the Hamshack

To: info-hams@ucsd.edu

In rec.radio.amateur.misc, linnig@m2000.dseg.ti.com (Mike Linnig) writes:

>My hamshack has ended up with many, many, little wall outlet transformers for
>all the gadgets I use besides my rig. I've got one for my ATV converter,
>one for my scanner preamp. One for my DX-440 shortwave radio...etc.

The 12V 25A power supply for my Drake TR-7 has an extra RCA phono plug with +12V for external accessories. When I built my DSP audio processor, I installed 4 phono jacks in parallel on the rear panel. The PS connects to the DSP, and the CW keyer, speech clipper, and any future projects connect to one of the spare jacks on the back of the DSP.

AL N1AL

Date: 13 Feb 93 17:15:12 GMT
From: news-mail-gateway@ucsd.edu
Subject: Motorola SecureClear(tm) Cordless Phones
To: info-hams@ucsd.edu

Is there a chipset that does this invert/uninvert operation?

Curious because I presume its going to have an oscialtor and an couple of balanced mixers. Seems like the basis of a "RF" voice signal processor, cheap if you can clip the IF!

Any ideas you app note readers (not in any of my Motorola databooks).

72/73 Kevin, N7WIM / G8UDP
a-kevinp@microsoft.com

Date: Thu, 11 Feb 1993 20:08:49 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!usenet.ins.cwru.edu!
howland.reston.ans.net!usc!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpl-opus!hpnmdla!
alanb@network.UCSD.EDU
Subject: No Code Proposition
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, dls@freedom.genrad.com (Diana L. Carlson) writes:

>In article <103360145@hpfcsf.FC.HP.COM> perry@hpfcsf.FC.HP.COM (Perry Scott) writes:

>>

>>Someone made a comment that anyone below 8th grade doesn't have the
>>algebra to solve the problems. Grep your database for hams holding
>>General or higher with birthdates after 010180.

>This IS true, believe it or not. However, the problem can be overcome by
>additional tutoring or memorizing.

AL N1AL

Mike Cohler - preferred email address:
MDC1@VAXA.YORK.AC.UK
ie MDC1%VAXA.YORK.AC.UK@UKACRL.BITNET

UK PPL and Glider Pilot

usenet.ins.cwru.edu!gatech!wa4mei!ke4zv!gary@network.UCSD.EDU

Subject: QRP amplifier ---> shorting stick

To: info-hams@ucsd.edu

In article <1993Feb11.100940.1@ttd.teradyne.com> rice@ttd.teradyne.com writes:

>In article <9302091309.AA28450@ucsd.edu>, MROWEN%STLAWU.BITNET@cunyv.cuny.edu
(Michael Owen W9IP) writes:

>> This reminds me of a story I was told by a technician while visiting
>> one of the local aluminum smelting plants. Their "pot lines" run on
>> 900 volts and draw 100,000 amps each. One day a few years ago a worker
>> shut one down for maintenance and installed the mandatory shorting bar.
>> He forgot to remove it before reconnecting the power. The resulting
>> short caused the failure of the adjacent hydroelectric power station and
>> turned off the juice to 1/2 the city of Montreal. Must be a pretty
>> hefty shorting bar.

>>

>> Michael Owen W9IP

>> MROWEN@STLAWU

>>

>

>HuH ??? P = I x E 900V x 100,000A = 90,000,000W = 90 Megawatts. I'd sure like
>a description of how they supply that kind of power thru one junction point.

Yep, pot lines are serious electricity users. They do it with *big*
buss bars. I am surprised that a piddling 90 MW took down a hydro
plant though. I guess the short drew a *lot* more than 90 MW.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 13 Feb 93 21:16:55 GMT

From: ogicse!uwm.edu!cs.utexas.edu!zaphod.mps.ohio-state.edu!darwin.sura.net!

rouge!jpd@network.UCSD.EDU

Subject: R-648/ARR-41 info needed

To: info-hams@ucsd.edu

I'm posting this for Tom, N5OFF ... please reply directly to him:

Does anyone have any experience with the R-648/ARR-41?

These have been in stock with Fair Radio sales for a number of
years, and they go for \$195 checked.

The radio is described as an airborne HF receiver, 190-550 khz and 2-25 Mhz coverage. It has digital-mechanical tuning and mechanical filters for 1.4 and 9.4 Khz. Requires 24V at 4A, and weighs 35 lbs.

Is this a mini R-390 or just another boat anchor? What is the vintage? What company made this pig(let).

Worth tinkering with?

Please reply to n5off@w5ddl.aara.org

--

-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx @k5arh (land), U0-22 (sat.)
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

Date: Fri, 12 Feb 1993 20:43:46 GMT
From: sdd.hp.com!hpscit.sc.hp.com!hplextra!hpl-opus!hpnmdla!alanb@network.UCSD.EDU
Subject: RF and Power Supply
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, ag821@yfn.ysu.edu (Jeff Gold) writes:

>I just put up a 160 meter 1/2 wave length dipole. It is
>only up in the air about 28 feet. It is resonant at 1.82
>or thereabouts. I don't have everything soldered up yet. The
>SWR is about 1.6:1 and under 2:1 for about 45Khz. I have it
>going into a AEA antenna tuner. When I turn the power past
>40 watts, the circuit breaker in my power supply trips.

It could easily be RF getting into the power supply. This will tend to be worse at low frequencies because the bypass capacitors don't do as good a job at LF. Is the 28-foot-high dipole close to the house? If so, you may have a high enough RF field to be causing the problem.

Try running the rig into a dummy load. If the problem goes away, then RF is likely the trouble. The best solution would be to get the antenna up higher in the air and as far from the house as possible. (This will improve your signal as well.) You can also try doubling the size of the RF bypass capacitors in the power supply. Be careful though -- some power supply regulators will oscillate with too much capacitance on the output. You could also

try wrapping the AC input and DC output cables from the PS around ferrite toroids or bars.

AL N1AL

Date: Fri, 12 Feb 1993 20:56:25 GMT
From: sdd.hp.com!hpscit.sc.hp.com!hplextra!hpl-opus!hpnmdla!alanb@network.UCSD.EDU
Subject: TH-3 antenna problems
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, price@cod.nosc.mil (James N. Price) writes:

>-----

>My TH-3 tri-bander crapped out during the Sprint this last
>weekend. ...

>The symptom: SWR is 3:1 on all freqs on all three bands, i.e. no
>dip in the SWR curve anywhere. ...

>And how does one troubleshoot such a thing?

I'd start with an ohmmeter. See if any of the traps are open. A shorted trap would be harder to find. You could tell easily with a grid dip oscillator. Otherwise, how about this: Remove the trap and connect it in series with a random-wire receiving antenna, close to the receiver. If the signals (on the trap frequency band) get stronger when the trap is shorted out, then the trap is working. Compare with a good trap (they likely are not ALL bad) to roughly calibrate your reading.

AL N1AL

Date: 13 Feb 93 19:41:19 GMT
From: ogicse!uwm.edu!zaphod.mps.ohio-state.edu!darwin.sura.net!haven.umd.edu!
wam.umd.edu!adam@network.UCSD.EDU
Subject: Voice Commander
To: info-hams@ucsd.edu

I'm looking for a small device called, I think, the GE Voice Commander. It's a 3/4" x 2 1/2" x 6" (approximately) 2m FM transmitter, about 3/4 watt, and used in tandem with a separate receiver makes an HT of sorts. It is xtal controlled and has two channels, built-in mic, PTT switch and a built-in 1/4 wave collapsable antenna. If you have one you're looking to get rid of or a similar device, please let me know.

--Adam
N3NKI
adam@wam.umd.edu

Date: 13 Feb 93 20:16:50 GMT
From: ogicse!uwm.edu!zaphod.mps.ohio-state.edu!cs.utexas.edu!
gerald@cc.utexas.edu!ccwf.cc.utexas.edu!cul8er@network.UCSD.EDU
Subject: Want mod for Yaesu FT-530
To: info-hams@ucsd.edu

Does anyone has the information for FT-530 mod?
I can't find it on the ftp site.

Date: 12 Feb 93 10:20:55 EST
From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa
Subject: WARNING: Bogus Mods for HTX202!
To: info-hams@ucsd.edu

johnnyb@netcom.com (John A Bryant) writes:
>Beware of bogus modifications for the Realistic HTX202 2M HT. I've even
>You can tell that the mods are bogus if they contain directions to
>remove chip resistor R33. If you remove this resistor you will lose the
>high power mode on your radio!

randall@informix.com (Randall Rhea) wrote:
> The recent volume (5a) of -Radio/Tech Modifications- by Artsci
> does not talk about R33. It does have this mod:
> 3) Locate and remove R55 (RX Mod 118-174 MHz)
> 4) Locate R77, R123, and R124

Randall & John-

According to my HTX-202 service manual, R33 is associated with an IC that provides the 455 KHz IF amplifier and the FM detector. R55 is the one connected to the High/Low power switch. R77, R123 and R124 do not appear in the service manual at all. Resistor numbers skip from R55 to R101, and from R113 to R201. There is no resistor with a "77" in its number. R1023 and R1024 do not connect to each other. Obviously, none of these mods will do what is claimed!

Since companies like Artsci must depend on the good will of their customers, I doubt they would deliberately publish bogus mods. Trying to rationalize their actions, I want to think that they might have made

something like a typographical error, listing the mods for the wrong radio.

Another possibility is that they found the equivalent radio sold under the label of the HTX-202's manufacturer. If that is the case, they may have developed "real" mods, but the R-numbers are different between the two radios. Is anyone in contact with Artsci who can check this out?

Hardly a week goes by that someone in rec.radio.amateur.misc or the FIDO Ham echo doesn't ask about mods for the HTX-202, and won't take "no" for an answer! There is no doubt that one could modify this radio to go out of the two meter band, but there is a price to pay. First, it wouldn't be a simple mod like clipping a diode. Second, the receiver front end has such narrow bandwidth, that it would need to be retuned for frequencies very far from the Ham band.

If I were to state that it were absolutely impossible to "unlock" the HTX-202, someone could accept the challenge, and eventually prove me wrong.

It reminds me of one of a TV comedian's routines a few years ago. Someone told him that it was impossible to fool the dollar bill changers found near vending machines. However, he had the last(?) laugh, when he tried a ten dollar bill, and the machine accepted it!

73, Fred, K4DII

fred-mckenzie@ksc.nasa.gov

Date: 13 Feb 93 20:26:46 GMT

From: ogicse!emory!swrinde!gatech!kd4nc!n4tii@network.UCSD.EDU

Subject: Yeasu FT-5100 questions

To: info-hams@ucsd.edu

Well....I've been contemplating buying a Yeasu Ft-5100 dual band rig.

I'd like to know some comments on the rig. I remember a few posts a while back regarding the rig, but I've forgotten what they said.

Basically, does the ad puport what the rig is supposed to do?

I mean, does it have all those memory channels, and does it have cross band repeat?

I fellow ham in my area has bought one and the guy at HRO told him that the 5100 does not have cross band repeat, but it does have dual inband receive. The 5200, however, loses dual inband receive but gains repeat and remote head.

Is this all true? Or does the 5100 also have cross band repeat capability?

And if so, how is this accomplished?

Thanks,

John
n4tii

n4tii%kd4nc.uucp@gatech.edu

Date: 12 Feb 93 14:58:30 GMT
From: furuta@MIMSY.CS.UMD.EDU
To: info-hams@ucsd.edu

References <1993Feb8.135709.9743@hemlock.cray.com>,
<PHR.93Feb10031448@napa.telebit.com>,
<1993Feb10.233915.26960@odin.corp.sgi.com>ix.dt.n
Subject : CW folklore (Re: Help CW practice)

In article <1993Feb10.233915.26960@odin.corp.sgi.com> adams@chuck.dallas.sgi.com
(Charles Adams) writes:

[body deleted]

>

>inquiring minds wanna know.....

>

>ciao de k5fo chuck dit dit

Actually what inquiring newbie minds want to know is the significance of the
dit dit. Someone threatened to tell us about this back in December (after
taking a poll) and promised to throw in some other CW facts and folklore.
How 'bout it?!

--Rick
N3JGF

End of Info-Hams Digest V93 #207
